

REMARKS

Reconsideration of this application as amended is respectfully requested.

In the Office Action, claims 1-8 and 31-40 were pending and rejected. In this response, claims 9-30 have been canceled without prejudice to affirm an election in response to a restriction requirement. Claims 1-2, 7-8, 31, and 38 have been amended. In addition, new claims 41-50 have been added. Thus, claims 1-8 and 31-50 remain pending. No new matter has been added.

Restriction to one of the following inventions is required under 35 U.S.C. § 121:

- I. Claims 1-8 and 31-40, drawn to apparatus and system with memory, memory sensing unit, request queue, and arbiter for return data sequence, classified in class 711, subclass 150.
- II. Claims 9-16 and 25-30, drawn to method and medium for receiving and sensing multiple memory requests, returning critical data, and returning non-critical data, classified in class 711, subclass 151.
- III. Claims 17-24, drawn to virtual port memory device, classified in class 711, subclass 149.

As in telephone conversation of March 11, 2004, Applicant elects Group 1 (claims 1-8 and 31-40) without traverse by canceling claims 9-30. Applicant hereby confirms the election of Group I (claims 1-8 and 31-40).

Claims 1-8 and 31-40 are rejected under 35 U.S.C. § 102(b) as being anticipated by Wilson et al. (U.S. Patent Number 5,208,914, hereinafter "Wilson"). In view of the foregoing amendments, it is respectfully submitted that claims 1-8 and 31-50 include limitations that are not disclosed by Wilson. Specifically, independent claim 1 as amended recites as follows:

1. An apparatus, comprising:
 - a memory unit to store data;
 - a plurality of memory-sensing devices coupled to the memory unit to sense the data stored in the memory unit substantially concurrently;
 - a request queue coupled to the memory unit via the memory-sensing devices, the request queue storing one or more requests while the memory-sensing devices are sensing data in the memory unit;
 - a response queue coupled to the memory-sensing devices, the response queue storing data from the memory-sensing devices that is not required to be returned to a requester immediately; and
 - an arbiter coupled to said response queue to transmit one or more responses stored in the response queue to a requester in an order based on a priority of the respective request corresponding to the response.

(Emphasis added)

Independent claim 1 includes multiple memory-sensing devices to sense the data stored in a memory unit substantially concurrently. As a result, multiple requests can be submitted to the multiple memory-sensing devices, based on their priorities, to access the data stored in the memory unit substantially concurrently without having to wait for a result of a previous request. It is respectfully submitted that the above limitations are absent from Wilson.

Although Wilson discloses input queue and data queue, such queues are not the same as request queue and response queue that are implemented within a memory device and store multiple requests and response based on their priority. The crossbars, and catch and hold queues 401-402, 404, and 406 of Wilson are not the memory-sensing devices that sense the data stored in the memory unit. Rather the crossbars are 17x8 and 8x8 switches (see, col. 6, lines 18-26 of Wilson). Particularly, these crossbars are not the same as multiple memory-sensing devices that can substantially concurrently sense the data stored in the memory unit, as recited in claim 2. Therefore, for the reasons discussed above, it is respectfully submitted that independent claim 1 is not anticipated by Wilson.

Similarly, independent claims 31 and 38 include limitations similar to those recited in claim 1. Thus, for the reasons similar to those discussed above, independent claims 31 and 38 are not anticipated by Wilson.

Given that dependent claims 2-8, 32-37, and 39-50 depend from one of the above independent claims, at least for the reasons similar to those discussed above, it is respectfully submitted that claims 2-8, 32-37, and 39-50 are not anticipated by Wilson.

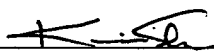
In view of the foregoing, Applicant respectfully submits the present application is now in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.

Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

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